



Samsung Electronics America

# Samsung Tech Talk

*Your source for service information*

## Inside this issue:

Samsung Soft Skills Training Now Live on Plus 1! **1**

Using Test Patterns as a Troubleshooting Tool **2**

GSPN Updates **6**

Are Fast Track Manuals Part of Your Tool Bag? **7**

Testing Bluetooth Operation with Samsung Smart TVs **8**

Fixing the Power Off – Power On Problem in 2012 TVs **9**

2012 RTS TV Training **10**

2012 TV Training Now On Line on Plus 1! **11**

## SAMSUNG SOFT SKILLS TRAINING NOW LIVE ON PLUS 1!

**Jim Foster**

*Manager, Training*

Let's face it, sometimes the most challenging part of your job is your everyday interaction with customers. We at Samsung understand this and want you to have the skills and confidence you need to deal with any customer and situation. With this in mind, we've developed our Soft Skills videos. These videos show you best customer relations practices and demonstrate - using realistic scenarios - how to interact with customers in an effective and positive way. Take your customer interaction skills to the next level. Represent Samsung at your very best. Learn the secrets of successful customer relations. Log on to Plus 1 and get started today!

<https://my.plus1solutions.net/clientPortals/samsung/>

The screenshot displays the Samsung Plus 1 Solutions website interface. On the left is a navigation menu with links like Home, Bulletins, Newsletters, Training, Electronics, Appliances, Scheduled, On-Demand, Office, Tech Tips, How To's, Account Profile, and Sign Out. The main content area lists various training resources, including '2012 Samsung Soft Skills Training' which is highlighted with a red box. An inset video player shows a man speaking, with the title 'Samsung Soft Skills' and the Samsung logo.

# USING TEST PATTERNS AS A TROUBLESHOOTING TOOL

**Khaled Abuali**

*Manager, CE Product Support*

In this article, we will cover internal tests patterns in 2010, 2011, and 2012 LED/LCD TV models. Understanding the internal test patterns can be a valuable diagnostic tool, allowing you to quickly isolate panel related issues to the Main Board, LVDS cable, T-Con Board, or the panel itself.

In addition to internal test patterns, you can also use the Boot Logo, OSD Menu, and Customer Picture Test to isolate Main Board issues since all of these items are generated on the Main Board.

Types of Test Patterns:

There are two types of test patterns:

- Test patterns generated on the Main Board
- Test patterns generated on the T-Con Board

You can use the main board patterns to diagnose problems with the Main Board as well as the LVDS cable, and use the T-Con patterns to diagnose problems with the T-Con Board and the panel.

## **Accessing the Test Patterns:**

The test patterns can be accessed through the factory menu (SVC → Test Patterns). You can use MUTE-1-8-2 or a factory remote to access the menu. The names of the test patterns vary by model year. See the table below.

Model Year	Main Board Test Patterns	T-Con Test Patterns
2012	Echo-P	T-Con
2011	GenoaP	Napoli
2010	FBE	FRC

## **Test Procedure:**

1. Access the Service Mode, and then Select SVC.
2. Select the Main or T-Con Test Pattern you want to run.
3. Use the left and right arrow keys to scroll through the patterns.

## **Test Results:**

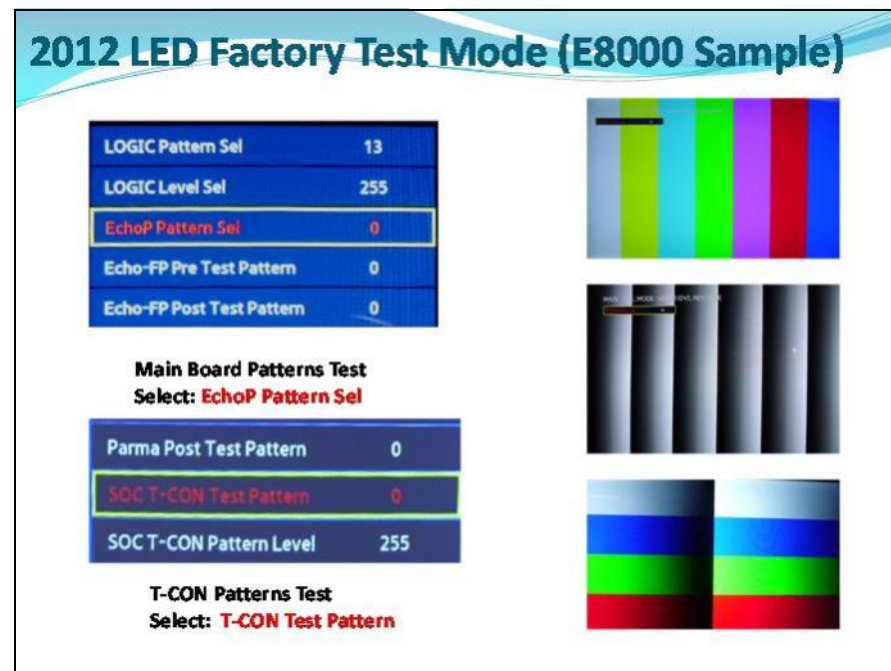
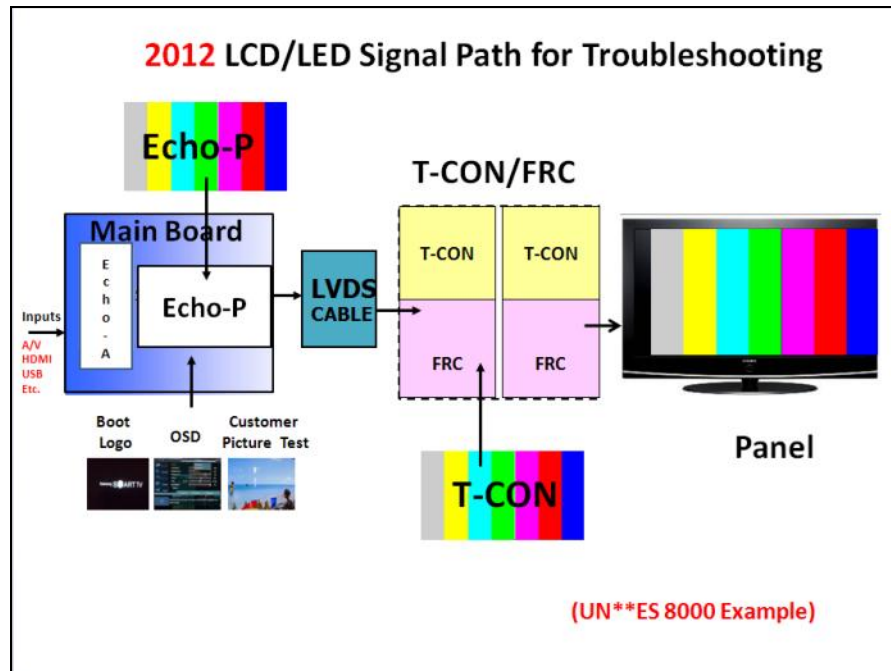
- If the T-Con Test is OK and Main Board is OK, the problem is usually caused by the source or input.
- If the T-Con Test is OK, but Main Board is not OK, the problem is usually caused by the LVDS Cable or Main Board.
- If the T-Con Test is not OK, then the problem is usually caused by the T-CON or PANEL.

## USING TEST PATTERNS AS A TROUBLESHOOTING TOOL

*continued*

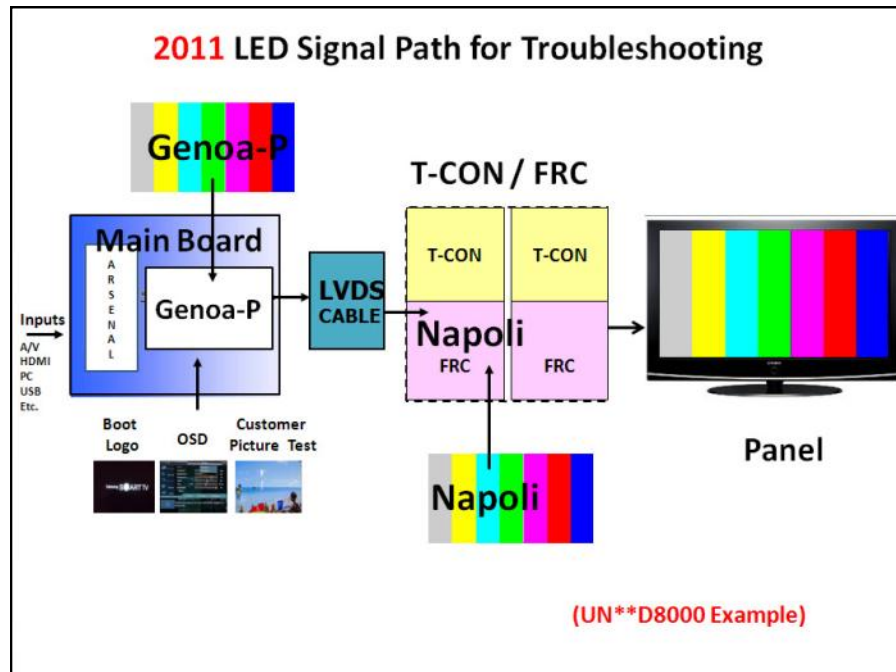
### Signal Paths for Troubleshooting and Test Mode Examples

Below are signal paths for troubleshooting and test mode examples for 2012, 2011, and 2010 LCD and LED model TVs.



## USING TEST PATTERNS AS A TROUBLESHOOTING TOOL

*continued*



### Main Board Pattern Test

Select: **GenoaP Pattern Sel**



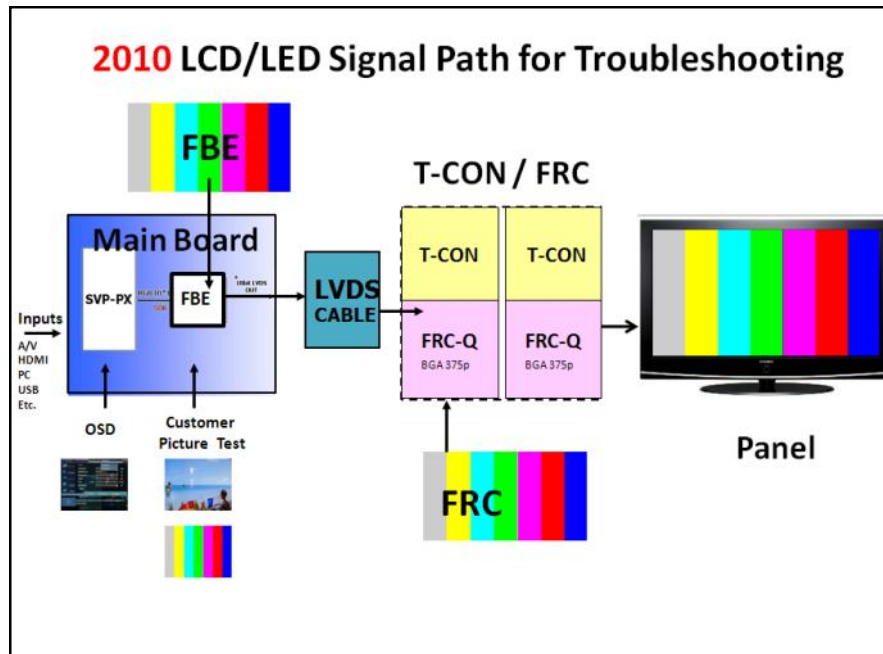
### T-Con Pattern Test

Select: **Napoli Post Test Pattern**



## USING TEST PATTERNS AS A TROUBLESHOOTING TOOL

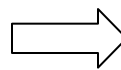
*continued*



### Main Board Pattern Test

Select: **FBE Pattern Sel**

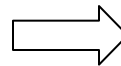
MAIN : SVC, MODE : PC, RES	
<b>FBE Pattern Sel</b>	0
LOGIC Pattern Sel	0
LOGIC Level Sel	255
READ PRE_PATT_SEL	0



### T-Con Pattern Test

Select: **FRCS Patt After DDR**

LDAsic Pattern Sel	0
FRCS Patt before DDR	0
<b>FRCS Patt after DDR</b>	0
FRCS PC Mode On/Off	OFF



## GSPN UPDATES

**Jeff Brutman**

*Senior Staff, Publications*

**We encourage you to use our GSPN site to find the latest service bulletins to aid you with your repairs:**

<http://gspn3.samsungcsportal.com/>

CE Service Bulletins uploaded to GSPN in April, 2012:

Bulletin Number	Subject	Applicable Models
ASC20120402001	Issue with the Wake on Voice (WoV) Command for 2012 Smart Interaction TVs. TV turns on by itself or doesn't turn on by voice command.	UN46ES7500FXZA, UN55ES7500FXZA UN46ES8000FXZA, UN55ES8000FXZA, PN51E8000GFXZA, PN60E8000GFXZA, PN64E8000GFXZA

To access service bulletins on GSPN, first visit <http://gspn3.samsungcsportal.com/> Login using your **User ID** and **Password**. Click on "Knowledge" at the top, then "Product Info" in the left column. The Product Information menu will appear. Click on "Service Bulletin (Local)" to bring up the Service Bulletins (Local) screen. To search for a bulletin, enter the bulletin number in the Subject field on the left side of the screen, and then click the Search button on the far right. If for some reason the bulletin does not appear, it can still be searched using the "Category" drop-down menus, the Subject field, or the Model field. You can also try using the Search field at the top of the screen.

### PLEASE SEND US YOUR COMMENTS!

Something you'd like to see in the Samsung Tech Talk Newsletter? If there a topic/issue we haven't covered that you'd like us to write about, **LET US KNOW!**

Please send your comments to:

**[training@sea.samsung.com](mailto:training@sea.samsung.com)**



## ARE FAST TRACK MANUALS PART OF YOUR TOOL BAG?

**Nicholas Webert**

*Regional Technical Trainer*

Located on GSPN under service tips are Samsung's Fast Track Manuals. Are you printing these and taking them with you on each job? If you said "NO", then you really need to read this article! Fast Track manuals are an invaluable source of information. The Fast Track manual for a unit not only shows the faults displayed on a unit, but also explains how to access internal controls to operate individual parts for testing. Would you drive your car without a key? Then why would you test a Samsung unit without a Fast Track manual? Follow the steps below to locate the manuals on GSPN.

The screenshot shows the Samsung GSPN interface. The top navigation bar includes 'Home', 'Training', 'Knowledge' (highlighted with a red circle), 'Business', and 'Support'. A search bar on the left is highlighted with a green circle, containing the text 'Enter Model Code Here' and the model number 'PN5906500DF'. The search results table shows a 'Service Tip (Local)' link highlighted with a black circle. Below the table, the 'Service Tip (Local)' details are shown, with the 'Subject' 'Fast Track for PN5906500FXZA' highlighted with a purple circle.

No	Model	Service Manual	Training Manual	User Manual	Service Bulletin (Local)	Service Tip (Local)	Software and Drivers	Firmware
1	PN5906500FXZA	1	1	1	1	1	1	3
2	PN5906500FXZC	1	1	1	0	0	0	2

Model	Category	Type	Sub type	Subject	Added By	Added On	Hits
PN5906500FXZA	TV Video & Audio	TV	Plasma	Fast Track for PN5906500FXZA	CHUCK RUSSO	01.04.2012	96

**STEP 1.** Click Knowledge.

**STEP 2.** Enter the model number, and then click the magnify glass.

**STEP 3.** Click the number below "Service Tips".

**STEP 4.** Select the document labeled "Fast Track".

Inside our Fast Track manuals, we've put all the tools you need to diagnose a problem. You'll see ohm ratings, voltages, error codes and their diagnoses, wiring breakdowns, quick tests, flow charts, installation information, and much more. The manuals even tell you where each metering lead goes and the values you should see for parts that are working correctly.

To close, the Fast Track manuals are among the most valuable tools you can add to your tool bag. They are the key to quick, accurate diagnoses of all Samsung products. What's more, they're FREE. Make it a habit: Before you run any service call, download the Fast Track manual for that unit and print it out. You'll be glad you did.

## TESTING BLUETOOTH OPERATION WITH SAMSUNG SMART TVs

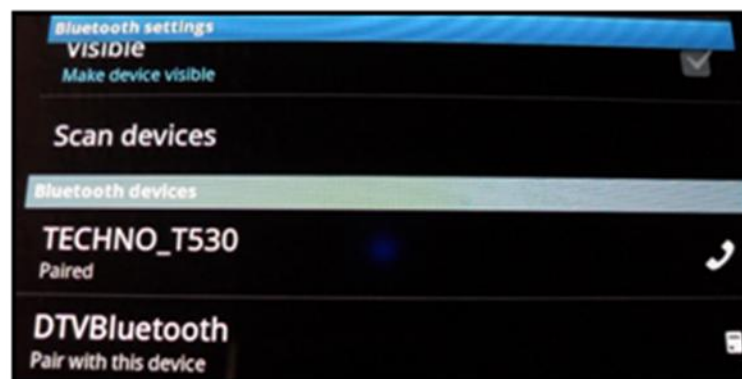
**Juan Morales**

*Regional Technical Trainer*



Bluetooth communication activates automatically when you turn the TV on. To test:

1. Using a cell phone with Bluetooth capabilities, SCAN for devices.
2. If Bluetooth communication is working properly, "DTV Bluetooth" or another similarly named device will appear on the phone.
3. If more than one TV is active in the area, multiple Bluetooth devices may appear in the Scan results.
4. Turn off the TV you are testing, and then re-scan for Bluetooth devices with your cell phone.
5. Verify that the number of Bluetooth Scanned Devices is reduced by one.
6. If not, suspect the Main PCB or Bluetooth module is defective.



Message on Cell Phone



# FIXING THE POWER OFF - POWER ON PROBLEM IN 2012 TVs

**Scott Whitman**

*Manager, CE Product Support*

## **Models:**

- UN\*\*EH4500/UN\*\*EH5300/UN\*\*ES6100 ~ UN\*\*ES8000
- PN\*\*E550 and higher

**Verify:** This issue only occurs when the TV is connected to a network, either LAN or Wi-Fi. If the TV is not connected to either, disregard this article.

**Symptom:** The TV will power "ON" normally, function for a set period of time without incident (this can be from 5 to 10 minutes), and then suddenly power "OFF" and power "ON".

**Note:** if you are using the TV remote, you will notice that the TV will stop reacting to remote control commands for approximately 5 to 10 seconds prior to the power cycling.

**Cause:** During normal operation, a conflict occurs via the network connection which causes the TV to lock up. The TV forces a reset to restore proper operation.

## **Corrective Action:**

1. Record the connection type and network addresses listed in the customer's Network settings.
2. If the TV is connected via LAN, disconnect the network connection. If the TV is connected via Wi-Fi, change the settings in the customer menu to "Wired".
3. Upgrade the firmware to the version listed below.

Platform	Firmware version	LED ( all screen sizes )	PDP ( all screen sizes )
Echo P	1016.3 (or higher)	ES7000 ~ ES8000	E7000 ~ E8000
X10+	1009.3 (or higher)	EH4500/EH5300/ES6100	E550 and up

4. Restore the Network settings to their previous configuration.
5. Perform a Network Test to verify the LAN connection.

## 2012 RTC TV Training



### Samsung Training 2012

Being held at one of our Regional Training Centers!

For 2012, Samsung introduces a new way of training. To help you with your demanding schedule, updated training on new 2012 TV products will be one day long. To be eligible to attend the one day training session, techs must have attended and successfully completed 2011 TV product training in one of our training centers.

Samsung will still hold 3 day Basic classes quarterly. These classes are intended for new techs who have never attended a Samsung training, or for techs who need extra help to improve their skills.

Attend the in-depth, hands-on 1 day Update or 3 day Basic training at one of our RTCs!

You can reserve your seat in training by emailing [training@sea.samsung.com](mailto:training@sea.samsung.com).

You can always obtain the most up to date training list by sending an email to [training@sea.samsung.com](mailto:training@sea.samsung.com).

Additionally, TV training is available on-demand 24/7 at <https://my.plus1solutions.net/clientPortals/samsung/>.



### Training Schedule:

Date	City	Comments
<b>May 8, 2012</b>	Bensenville, IL	FE/ASC 1 day Update Training—Session 1
<b>May 9, 2012</b>	Bensenville, IL	FE/ASC 1 day Update Training—Session 2
<b>May 10, 2012</b>	Bensenville, IL	FE/ASC 1 day Update Training—Session 3
<b>May 11, 2012</b>	Bensenville, IL	FE/ASC 1 day Update Training—Session 4
<b>May 15, 2012</b>	Little Ferry, NJ	FE/ASC 1 day Update Training—Session 1
<b>May 16, 2012</b>	Little Ferry, NJ	FE/ASC 1 day Update Training—Session 2
<b>May 17, 2012</b>	Little Ferry, NJ	FE/ASC 1 day Update Training—Session 3
<b>May 18, 2012</b>	Little Ferry, NJ	FE/ASC 1 day Update Training—Session 4
<b>June 12, 2012</b>	Bensenville, IL	FE/ASC 1 day Update Training—Session 1
<b>June 13, 2012</b>	Bensenville, IL	FE/ASC 1 day Update Training—Session 2
<b>June 14, 2012</b>	Bensenville, IL	FE/ASC 1 day Update Training—Session 3
<b>June 15, 2012</b>	Bensenville, IL	FE/ASC 1 day Update Training—Session 4
<b>June 19, 2012</b>	Little Ferry, NJ	FE/ASC 1 day Update Training—Session 1
<b>June 20, 2012</b>	Little Ferry, NJ	FE/ASC 1 day Update Training—Session 2
<b>June 21, 2012</b>	Little Ferry, NJ	FE/ASC 1 day Update Training—Session 3
<b>June 22, 2012</b>	Little Ferry, NJ	FE/ASC 1 day Update Training—Session 4

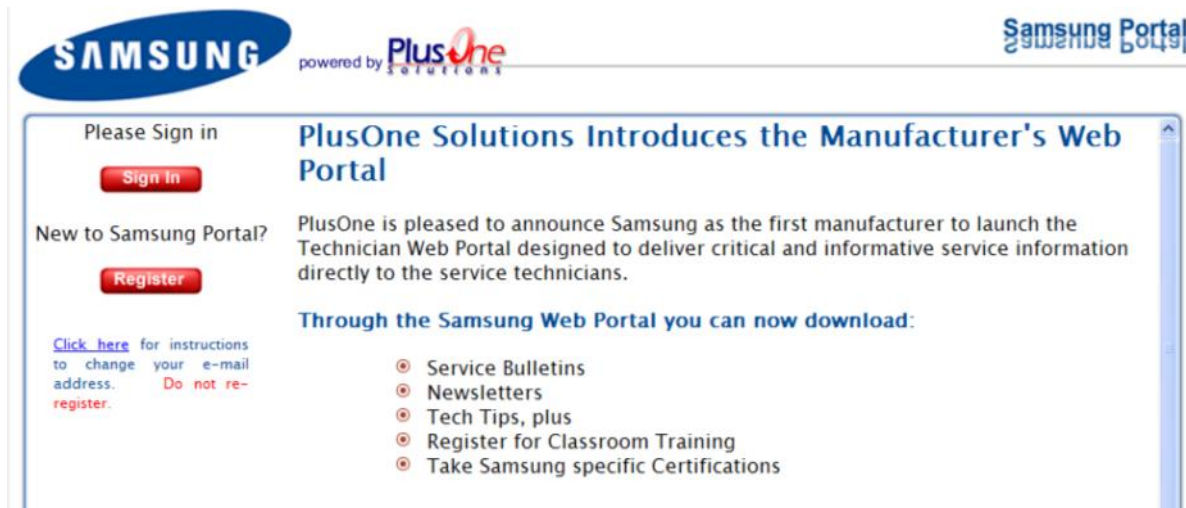
## 2012 TV TRAINING NOW ON LINE ON PLUS 1!

**Jim Foster**

Manager, Training/Publications

Samsung is pleased to announce that 2012 TV training certification courses are now on line. Keep your skills up to date on our latest models. Take the courses and get certified now!

Click here to access Plus 1: <https://my.plus1solutions.net/clientPortals/samsung/>



The 2012 TV on-line training certification training is divided into two courses:

[2012 Samsung TV Features, Network & 3D Course](#) (Video - Released 4.30.2012) - This training covers 2012 TV product and repair in detail. Take this to learn all you need to know to repair Samsung 2012 TVs.

[2012 Samsung TV and Panel Certification Course](#) (Video - Released 4.30.2012) - You must take this course to obtain your Panel Authorization for 2012.

These classes are essential to maintaining your skill set on 2012 TV products. Technicians must take and pass the 2012 TV and Panel Certification Course to get panel authorization for the year.

Samsung Electronics America  
85 Challenger Road  
Ridgefield Park, NJ 07660

Phone: 201-229-4251

*The information in this bulletin is published for experienced repair technicians only and is not intended for use by the public. It does not contain warnings to advise non-technical individuals of possible dangers in attempting to service a product. Only experienced professional technicians should repair products powered by electricity. Any attempt to service or repair the product or products dealt with in this information by anyone else could result in serious injury or death. Information provided in this bulletin is subject to change or update without notice.*